FYP Ideas - Fall 2023

1. FYP Title

FYP Highlights

2. ADSMART

AdSmart is an application that will target the right customers with the right ads. This will be achieved by thorough analysis of the user's personality and psychological state,using the social media posts and activities. This app also aims to help users with declining mental health, by presenting relevant and useful ads of rehab centers or mental health care centers and programs. Relevant ads will be shown to users on the AdSmart android application that will be used to view social media feeds.

Tools, Languages/ Technologies: C#, Java, Python, XML, camelCasing

3. Cyber bullying detector

Cyber bullying detector detect the bullying instances in social networks and increase their visibility so that social institutions could do something about it; e.g., counseling for victims and bullies, detention of most reckless bullies. This software application is capable of accurately classifying Twitter messages as negative or positive with respect to some commonly used terms.

Tools, Languages/ Technologies: Web application, Automation, Optimization, Data Scrapping, fastText, BERT

4. Secret Football Stars

Secret Football Stars is a web-based application that will enable users to preform customized temporal queries and find teams and players stats and players ratings. Temporal queries will allow the users to check time based performance of teams and players at any specific interval during the match. application will provide user free hand to check stats about players like defender, goal keepers and other unsung player's.

Tools, Languages/ Technologies: Python, ASP .NET, SentiWordNet, Beautiful Soup and Selenium.

5. Virtual pair programming

Virtual Pair Programming is a desktop application which provides a professional platform for programmers to practice pair programming remotely in supervision of team lead. This application means to provide ease for Software Engineers to work on a project in pairs by sharing code screen of Driver's screen with Navigator's which allows him to write and edit code based on the tasks assigned by team lead in a scheduled 2hour session. This app will provide voice chat and text chat. Log will be maintained of each session in a database which is available to the concerned team lead. Team lead can intervene anytime to watch and listen on going session screen.

Tools, Languages/ Technologies: .NET, WPF Framework which is using a software architectural pattern Model–view–view model (MVVM)

6. Data Structures Learning Environment

This project provides a platform from which students can learn the basic concepts of data structures and once they think that they have got the concept then they can test their concepts by solving different tasks which will be generated on runtime.

Tools, Languages/ Technologies: python, Django framework.

7. E-Polio Vaccination

The purpose of e-Polio Vaccination is to provide polio workers tracking system to help the supervisor in keeping track of their workers. It will help to ensure that no child is left without vaccination because a worker may intentionally or unintentionally miss a house or a street of allocated area. It will help the workers to complete their tasks easily by using optimized paths generated by the system.

Tools, Languages/ Technologies: Web Applicatoin , Android Application, Real Time Tracking, Path Optimization, Data Analysis and Prediction

8. CricX "A System To Automatically Generate a Summary From The Scorecard Or Detailed Repor Match"

CricX aims to provide a system capable of accomplishing intelligent content generation automatically without the intervention of any human force. The pure goal of CricX is to create a text summarization tool which can help summarize documents in CricX datasets and an android based chatbot to answer specific queries related to a cricket match. By having a text summarization tool, can summarize the articles to save one's time and resources. Furthermore, with the assistance of an android based chatbot, one can ask specific queries related to a cricket match and can get answers for that query.

Tools, Languages/ Technologies: Java, camelCassing, Android Studio

9. LINGUA FRANCA

Lingua franca intends to aid the audibly impaired in understanding the speech of the non deaf community through sign language. This application aim to reduce the prevailing gap between the deaf and the non deaf community. This application will also help the hard of hearing come out from the isolation that they are facing in the world today.

Tools, Languages/ Technologies: Web Application, Encoder-Decoder Model, FAP/BAP Synchronization, ASL Gran Audio to Text, Text to ASL

10. Urdu Chat-bot for Pakistan General Knowledge

Urdu Chat-bot enable the user to ask a question (that will be the input) in "urdu", the application will then process the question using the concepts and techniques of Deep Neural Networks, after critical analysis of the question, a suitable answer will be generated and displayed to the user. User interact with the application, by typing their questions in Urdu script and our application will intelligently give the answer to that question in Urdu script.

Tools, Languages/ Technologies: Django for the server, Python for the backend coding, TensorFlow for the Deep Learning and NLP techniques.

11. ProgramAR

ProgramAR is a development project that will facilitate children, from age 10 to age 14, learn basic programming concepts (Input, output, Arithmetic Operations, Conditional statements, looping) through Augmented Reality. This application, with the help of research, will reduce the learning and adaptation time of children by at least 40 %. This application will especially be designed according to the child phycology, so it will increase child's interest in programming moreover in our application, basic programming concepts will be augmented into the reality and will also decrease the learning curve.

Tools, Languages/ Technologies: XCode, Firebase, Augmneted Reality, Real Time Database

12. Handbook
Streaming Buddy

Streaming Buddy online virtual room where people regardless of the place they are living in can invite their friends and watch movies in an environment which will be replicating the feelings of a movie theater. The person who invites others will have the rights to pause or stop the movie during its run time upon the request of others. Similarly, communication options will also be given to people like comment section, voice and video chatting where people can not only enjoy the movie but also talk to others in real face-time video system. A synchronous video streaming will be done where all the display screens will be getting the same display and the movies that are to be selected will be placed on a central server.

Tools, Languages/ Technologies: web application, real face-time video, voice chat, Node .js,